

REMARKS

Claims 12-16 have been canceled. New claims 28-38 have been added. No new matter has been introduced by the amendments. Accordingly, claims 28-38 are pending in the present application.

The present invention relates to an array of semiconductor packages. As such, new independent claim 28 recites, *inter alia*, "an array of semiconductor packages, comprising: a substrate having upper and lower surfaces, one of said upper and lower surfaces including a first plurality of grooves dividing said substrate into a plurality of segments; a plurality semiconductor dies, each semiconductor die being substantially aligned with a segment." Claim 28 further recites, *inter alia*, "an encapsulant over said plurality of semiconductor dies, said encapsulant having a second plurality of grooves."

New independent claim 35 recites, *inter alia*, "a method of forming an array of semiconductor packages, said method comprising: dividing a substrate into a plurality of segments by forming a first plurality of grooves on said substrate." Claim 35 further recites, *inter alia*, "forming an array of semiconductor dies over said plurality of segments, each semiconductor die formed to be substantially aligned with a segment; and forming an encapsulant having a second plurality of grooves over said array of semiconductor dies."

None of the references, either alone or in combination, cited by the Office Action teach each and every limitation of new independent claims 28 and 35. The primary reference cited by the Office Action, Japanese Patent No. JP10064854 ("Yamaoka"), relates "to a method for cutting a gallium nitride group compound semiconductor wafer." (Abstract). Yamaoka, however, fails to teach or suggest "an array of semiconductor packages, comprising: a substrate having upper and lower

surfaces, one of said upper and lower surfaces including a first plurality of grooves dividing said substrate into a plurality of segments; a plurality semiconductor dies, each semiconductor die being substantially aligned with a segment; and an encapsulant over said array of semiconductor dies, said encapsulant having a second plurality of grooves,” as recited by claim 28.

Yamaoka also fails to teach or suggest “a method of forming an array of semiconductor packages, said method comprising: dividing a substrate into a plurality of segments by forming a first plurality of grooves on said substrate; forming an array of semiconductor dies over said plurality of segments, each semiconductor die formed to be substantially aligned with a segment; and forming an encapsulant having a second plurality of grooves over said array of semiconductor dies,” as recited by claim 35.

For at least the foregoing reasons new independent claims 28 and 35 are allowable over Yamaoka. Claims 29-34, 36, 37, and 38 depend from claims 28 and 35, and are allowable along with claims 28 and 35, and on their own merit.

The Office Action also cites Nishino et al., U.S. Patent No. 6,010,384 (“Nishino”). Nishino relates to a liquid crystal display device. (Abstract). Nishino, however, fails to teach or suggest “an array of semiconductor packages, comprising: a substrate having upper and lower surfaces, one of said upper and lower surfaces including a first plurality of grooves dividing said substrate into a plurality of segments; a plurality semiconductor dies, each semiconductor die being substantially aligned with a segment; and an encapsulant over said array of semiconductor dies, said encapsulant having a second plurality of grooves,” as recited by claim 28.

Nishino also fails to teach or suggest “a method of forming an array of semiconductor packages, said method comprising: dividing a substrate into a plurality

of segments by forming a first plurality of grooves on said substrate; forming an array of semiconductor dies over said plurality of segments, each semiconductor die formed to be substantially aligned with a segment; and forming an encapsulant having a second plurality of grooves over said array of semiconductor dies,” as recited by claim 35.

For at least the foregoing reasons new independent claims 28 and 35 are allowable over Nishino. Claims 29-34, 36, 37, and 38 depend from claims 28 and 35, and are allowable along with claims 28 and 35, and on their own merit.

The Office Action cites Yamada et al., U.S. Patent Application No. 2001/0005599 (“Yamada”). The present invention claims priority to application no. 09/191,037, filed on Nov. 12, 1998. Yamada does not qualify as prior art under §102(a) or §102(b) because Yamada was published on Jun. 28, 2001, *after* the effective filing date of the present application. Yamada does not qualify as prior art under §102(e) because Yamada was filed on Dec. 23, 2000, *after* the effective filing date of the present application. For at least the foregoing reasons, Yamada is not a proper prior art reference.

The Office Action also cites Wakashima et al., U.S. 6,492,203 (“Wakashima”). Wakashima relates to “a semiconductor device fabrication process comprising an encapsulation step of carrying out encapsulation.” (Abstract). Wakashima, however, fails to teach or suggest “an array of semiconductor packages, comprising: a substrate having upper and lower surfaces, one of said upper and lower surfaces including a first plurality of grooves dividing said substrate into a plurality of segments; a plurality semiconductor dies, each semiconductor die being substantially aligned with a segment; and an encapsulant over said array of semiconductor dies, said encapsulant having a second plurality of grooves,” as recited by claim 28.

Wakashima also fails to teach or suggest "a method of forming an array of semiconductor packages, said method comprising: dividing a substrate into a plurality of segments by forming a first plurality of grooves on said substrate; forming an array of semiconductor dies over said plurality of segments, each semiconductor die formed to be substantially aligned with a segment; and forming an encapsulant having a second plurality of grooves over said array of semiconductor dies," as recited by claim 35.

For at least the foregoing reasons new independent claims 28 and 35 are allowable over Wakashima. Claims 29-34, 36, 37, and 38 depend from claims 28 and 35, and are allowable along with claims 28 and 35, and on their own merit.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

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Respectfully submitted,

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